

In re application of  
Gregory M. Fahy  
Application No.: 09/916,396  
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Atty. Dkt. No. CentMed.020A  
(074066-0104)

### Amendments to the Claims/Listing of Claims

Please amend claims 3, 4, 6, 10, 13, 15, 22, 25, 26, 30, 32 and 36, and cancel claims 1, 2, 7, 8, 9, 19-21, 27-29, 31, 33-35 and 37 without prejudice, as follows. This listing of claims will replace all prior versions, and listings of claims in the present application.

1-2. (Cancelled)

3. (Currently amended) The In a solution of Claim 2 for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, the improvement comprising inclusion of mannitol, lactose and vitrifiable concentrations of cryoprotectant in the solution, wherein said cryoprotectant comprises dimethyl sulfoxide, formamide, and ethylene glycol.

4. (Currently amended) The In a solution of Claim 2 for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, the improvement comprising inclusion of mannitol, lactose and vitrifiable concentrations of cryoprotectant in the solution, wherein said cryoprotectant comprises polyvinyl alcohol, or a copolymer of vinyl alcohol and vinyl acetate.

5. (Cancelled)

6. (Currently amended) The In a solution of Claim 2 for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, the improvement comprising inclusion of mannitol, lactose and vitrifiable concentrations of cryoprotectant in the solution, wherein said cryoprotectant comprises one or more of polyglycerol and polyvinylpyrrolidone.

7-9. (Cancelled)

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10. (Currently amended) The ~~In a carrier~~ solution of ~~Claim 1~~, further comprising for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, the improvement comprising inclusion of mannitol, lactose and glucose in the solution.

11-12. (Cancelled)

13. (Currently amended) The ~~A carrier~~ solution of ~~Claim 10~~ further comprising, for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, said solution comprising: 45 mM mannitol, 45 mM lactose, 7.2 mM potassium phosphate, ~~1 mM calcium chloride, 2 mM magnesium chloride,~~ 5 mM reduced glutathione, 28.2 mM potassium chloride, 10 mM sodium bicarbonate, and 1 mM adenine HCl.

14. (Cancelled)

15. (Currently amended) The ~~In a~~ solution of ~~Claim 10~~ for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, the improvement comprising inclusion of mannitol, lactose and vitrifiable concentrations of cryoprotectant in the solution, wherein said solution further comprises polymers selected from the group consisting of: polyglycerol, polyvinylpyrrolidone, polyvinyl alcohol, and a copolymer of vinyl alcohol and vinyl acetate, and wherein said solution has a tonicity of between 1.1 to 2.0 times that of a solution that does not cause osmotic volume changes of said cell, tissue or organ.

16-21. (Cancelled)

22. (Currently amended) The ~~In a carrier~~ solution of ~~Claim 1~~ for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, the improvement comprising inclusion of mannitol and lactose in the solution, wherein said

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solution has a tonicity of between 1.1 to 2.0 times that of a solution that does not cause osmotic volume changes of said cell, tissue or organ.

23-24. (Cancelled)

25. (Currently amended) ~~The~~ In a carrier solution of Claim 1 for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, the improvement comprising inclusion of mannitol and lactose in the solution, wherein the lactose and mannitol are each present at 45 mM.

26. (Currently amended) ~~The~~ In a carrier solution of Claim 1 for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, the improvement comprising inclusion of mannitol and lactose in the solution, further comprising 10 mM bicarbonate.

27-29. (Cancelled)

30. (Currently amended) ~~The~~ In a solution of Claim 7 for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, the improvement comprising inclusion of mannitol, lactose and vitrifiable concentrations of cryoprotectant in the solution, wherein said solution further comprises polymers selected from the group consisting of: polyglycerol, polyvinylpyrrolidone, polyvinyl alcohol, and a copolymer of vinyl alcohol and vinyl acetate, said solution having a tonicity of 1.2 to ~~[[1.5]]~~ 2.0 times that of a solution that does not cause osmotic volume changes of said cell, tissue or organ.

31. (Cancelled)

32. (Currently amended) The solution of claim ~~[[31]]~~ 13 further comprising 1 mM  $\text{CaCl}_2$  and 2 mM  $\text{MgCl}_2$ .

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33-35. (Cancelled)

36. (Currently amended) ~~The~~ In a solution of Claim 19, further comprising PVP 5000 for the introduction and washout of vitrifiable concentrations of cryoprotectants in a viable cell, tissue or organ, the improvement comprising inclusion of mannitol, lactose and vitrifiable concentrations of cryoprotectant in the solution, wherein said solution further comprises polyvinylpyrrolidone.

37. (Cancelled)

38-46 (Not entered)